



March 29, 2012

Brad Davis
Zia Engineering & Environmental
755 S Telshor Blvd Ste F-201
Las Cruces, NM 88011
TEL: (575) 993-6824
FAX (575) 532-1587
RE: HELSTF Chromium Spill

Order No.: 1203142

Dear Brad Davis:

DHL Analytical received 5 sample(s) on 3/15/2012 for the analyses presented in the following report.

REVISION#1: This revision consists of reporting the non-detect analytical results as <MDL as per the client.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.2 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in black ink, appearing to read "John DuPont".

John DuPont
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory
Certification Number: T104704211-11-7 & DoD ELAP #ADE-1416 v2



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755 S. Tebbs Rd. Ind. Site, F-201
Las Cruces, NM 88011
575-632-1626 x
575-632-1587 f

#1203142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.		PROJECT NAME		NO. OF CONTAINERS	ANALYSIS REQUESTED						REMARKS		
		HESLF Chromium Spill			TOC	VOCs	DRC	Hexavalent Chromium	pH	Total Chromium			
SAMPLER'S SIGNATURE	<i>Bradley T. Davis</i>												
DATE	TIME	SAMPLE ID	MATRIX	LAB NO.									
01	3-14-12	1050	HESLF-0143-HMW-TB-3-0312	Water	2	X						trip blank	
02	3-14-12	1050	HESLF-0143-HMW-037-0312	Water	10	X	X	X	X	X			
03	3-14-12	1050	HESLF-0143-HMW-137-0312	Water	10	X	X	X	X	X			
04	3-14-12	1200	HESLF-0143-HMW-038-0312	Water	10	X	X	X	X	X			
05	3-14-12	1330	HESLF-0143-HMW-039-0312	Water	10	X	X	X	X	X			
PROJECT INFORMATION		SAMPLES RECEIVED		1. RELINQUISHED BY: (SIGNATURE)			2. RELINQUISHED BY: (SIGNATURE)			3. RECEIVED BY LAB: (SIGNATURE)			
PROJECT MANAGER		TOTAL NO. OF CONTAINERS		(PRINTED NAME) <i>Bradley T. Davis</i> 3-14-12			(PRINTED NAME) <i>Fed Ex</i> 3/15/12 1033			(PRINTED NAME)			
<i>Brad Davis</i>		40		RECEIVED BY: (SIGNATURE)			RECEIVED BY: (SIGNATURE)			(COMPANY)			
SHIPPING ID NO.		CHAIN OF CUSTODY SEALS		<i>Fed Ex</i>			<i>Fed Ex</i>			(TIME/ DATE) 3/14/12 1030			
VIA:		GOOD CONDITION/CHILLED		3/14/12 1030			3/15/12 1033			(TIME/ DATE)			
<i>Fed Ex</i>		CONFORMS TO RECORD		SPECIAL INSTRUCTIONS/COMMENTS:									
<i>Shawn H. 5/27/12</i>													

From: (505) 532-1526
Zia Engineering

Origin ID: LRUA



755 S. Telshor Blvd.
Suite Q-201
Las Cruces, NM 88011

Ship Date: 14MAR12
ActWgt: 50.0 LB
CAD: 102287640/INET3250

SHIP TO: (512) 388-8222
John Dupont
DHL Analytical
2300 DOUBLE CREEK DR

ROUND ROCK, TX 78664

BILL SENDER

Delivery Address Bar Code



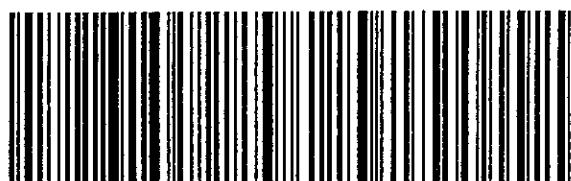
Ref # LCS-09-015/BG 0033
Invoice #
PO #
Dept #

THU - 15 MAR A1
PRIORITY OVERNIGHT

TRK# 7933 3958 5637
0201

78664
TX-US
AUS

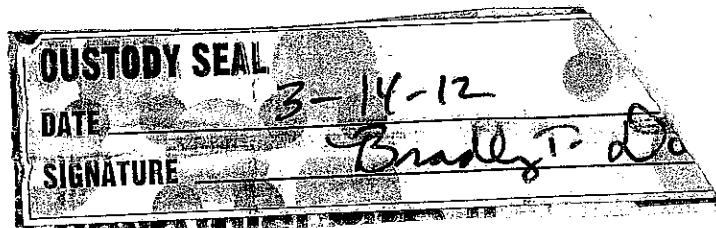
XH BSMA



512G1/8ID5/A278

After printing this label:

1. Use the "Print" button on this page to print your label to your laser or inkjet printer.



DHL Analytical

Sample Receipt Checklist

Client Name Zia Engineering & Environmental

Date Received: 3/15/2012

Work Order Number 1203142

Received by JB

Checklist completed by:

Signature

3/15/2012

Date

Reviewed by

Initials

3/15/2012

Date

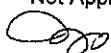
Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	2.7 °C
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

Adjusted?

NO

Checked by



Any No response must be detailed in the comments section below.

Client contacted _____

Date contacted: _____

Person contacted _____

Contacted by: _____

Regarding: _____

Comments:

Corrective Action

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: HELSTF Chromium Spill		Date: 3/27/12					
Reviewer Name: Carlos Castro		Laboratory Work Order: 1203142					
Prep Batch Number(s): See Prep Dates Report		Run Batch: See Analytical Dates Report					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-Custody (C-O-C) 1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? 2) Were all departures from standard conditions described in an exception report?	X				R1-01
R2	OI	Sample and Quality Control (QC) Identification 1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers? 2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test Reports 1) Were all samples prepared and analyzed within holding times? 2) Other than those results < MQL, were all other raw values bracketed by calibration standards? 3) Were calculations checked by a peer or supervisor? 4) Were all analyte identifications checked by a peer or supervisor? 5) Were sample quantitation limits reported for all analytes not detected? 6) Were all results for soil and sediment samples reported on a dry weight basis? 7) Were % moisture (or solids) reported for all soil and sediment samples? 8) If required for the project, TICs reported?	X				
R4	O	Surrogate Recovery Data 1) Were surrogates added prior to extraction? 2) Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test Reports/Summary Forms for Blank Samples 1) Were appropriate type(s) of blanks analyzed? 2) Were blanks analyzed at the appropriate frequency? 3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? 4) Were blank concentrations < MQL?	X				R5-04
R6	OI	Laboratory Control Samples (LCS): 1) Were all COCs included in the LCS? 2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps? 3) Were LCSs analyzed at the required frequency? 4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits? 5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs? 6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data 1) Were the project/method specified analytes included in the MS and MSD? 2) Were MS/MSD analyzed at the appropriate frequency? 3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits? 4) Were MS/MSD RPDs within laboratory QC limits?	X				R7-03
R8	OI	Analytical Duplicate Data 1) Were appropriate analytical duplicates analyzed for each matrix? 2) Were analytical duplicates analyzed at the appropriate frequency? 3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method Quantitation Limits (MQLs): 1) Are the MQLs for each method analyte included in the laboratory data package? 2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard? 3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	Other Problems/Anomalies 1) Are all known problems/anomalies/special conditions noted in this LRC and ER? 2) Were all necessary corrective actions performed for the reported data? 3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				R10-01

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: HELSTF Chromium Spill		Date: 3/27/12				
Reviewer Name: Carlos Castro		Laboratory Work Order: 1203142				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴
S1	OI	Initial Calibration (ICAL)				
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X			
		2) Were percent RSDs or correlation coefficient criteria met?	X			
		3) Was the number of standards recommended in the method used for all analytes?	X			
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X			
		5) Are ICAL data available for all instruments used?	X			
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X			S1-06
S2	OI	Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB)				
		1) Was the CCV analyzed at the method-required frequency?	X			
		2) Were percent differences for each analyte within the method-required QC limits?		X		S2-02
		3) Was the ICAL curve verified for each analyte?	X			
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X			
S3	O	Mass Spectral Tuning				
		1) Was the appropriate compound for the method used for tuning?	X			
		2) Were ion abundance data within the method-required QC limits?	X			
S4	O	Internal Standards (IS)				
		1) Were IS area counts and retention times within the method-required QC limits?	X			
S5	OI	Raw Data (NELAC section 1 appendix A glossary, and section 5.12)				
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X			
		2) Were data associated with manual integrations flagged on the raw data?	X			S5-02
S6	O	Dual Column Confirmation				
		1) Did dual column confirmation results meet the method-required QC?			X	
S7	O	Tentatively Identified Compounds (TICs)				
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X	
S8	I	Interference Check Sample (ICS) Results				
		1) Were percent recoveries within method QC limits?	X			
S9	I	Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions				
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X			
S10	OI	Method Detection Limit (MDL) Studies				
		1) Was a MDL study performed for each reported analyte?	X			
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X			
S11	OI	Proficiency Test Reports				
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X			
S12	OI	Standards Documentation				
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X			
S13	OI	Compound/Analyte Identification Procedures				
		1) Are the procedures for compound/analyte identification documented?	X			
S14	OI	Demonstration of Analyst Competency (DOC)				
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X			
		2) Is documentation of the analyst's competency up-to-date and on file?	X			
S15	OI	Verification/Validation Documentation for Methods (NELAC Chap 5)				
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X			
S16	OI	Laboratory Standard Operating Procedures (SOPs)				
		1) Are laboratory SOPs current and on file for each method performed?	X			

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Signature Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

John DuPont – General Manager

Scott Schroeder – Technical Director



Signature

03/29/12

Date

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Lab Order: 1203142

CASE NARRATIVE

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.2 and NELAC.

Method SW6020 - Metals Analysis
Method M8015D - DRO Analysis
Method SW8260C - Volatile Organics
Method M4500-H+ B - pH of a Water
Method M5310C - TOC Analysis
Method M3500-CR D - Hexavalent Chromium - Water (Trivalent Chromium is not NELAC Certified)

Exception Report R1-01

The samples were received and log-in performed on 3/15/12. A total of 5 samples were received and all were analyzed. The samples arrived in good condition and were properly packaged. The samples were collected on Mountain Standard Time.

Exception Report R5-04

For DRO analysis performed on 3/18/12 DRO was detected below the reporting limit in the method blank (MB-50976). The associated samples (HLSF-0143-HMW-037-0312 and HLSF-0143-HMW-137-0312) may be biased high.

Exception Report R7-03

For Volatiles analysis performed on 3/21/12 the matrix spike and matrix spike duplicate recoveries were below control limits for 2-Chloroethylvinylether. These are flagged accordingly in the QC summary report. The reference sample selected for the matrix spike and matrix spike duplicate was not from this work order. The LCS was within control limits for this compound. No further corrective action was taken.

Exception Report R10-01

For DRO analysis (batch 51043) an MS/MSD was not performed due to insufficient sample volume. An LCS/LCSD was performed instead.

For Hexavalent Chromium analysis the Hexavalent Chromium results were slightly higher than the Total Chromium results for samples HLSF-0143-HMW-038-0312 and HLSF-0143-HMW-039-0312. These are within the method variation limits. No further corrective actions were taken.

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Lab Order: 1203142

CASE NARRATIVE

Exception Report S1-06

For Volatiles analysis, the recovery of Dichlorodifluoromethane for the Second Source Calibration Verification is above the method control limits. The associated samples are nondetect for this compound. No further corrective action was taken.

Exception Report S2-02

For Volatiles analysis performed on 3/21/12 the ICV was slightly below control limits for a few compounds. These are flagged accordingly in the QC summary report. The LCS was within control limits for these compounds. No further corrective action was taken.

Exception Report S5-02

For Volatile Analysis, some samples and/or standards were manually integrated. Please refer to the manual integration table on the last page of this report for the full list of samples, standards, and the compounds that were manually integrated.

A summary of project communication follows:

DHL Analytical received the Project RFQ from the client on 12/29/09. Completed RFQ returned to client via email on 1/07/2010. Purchase Order/Terms and Conditions received and signed and approved by both parties on 01/25/2010.

Brad Davis of Zia requested a bottle kit via email from Jennifer Barker of DHL on 2/16/2012. A DHL BottleKit #3136 sent on 2/20/2012 via Lonestar Overnight, to arrive by 2/22/2012.

This sample delivery group arrived at DHL Analytical 3/15/12. Sample summary sent via email from Log-in to client on 3/15/12.

All hardcopies for the sample kit request, bill of lading for sample kit sent and login summary are kept in project folder.

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Lab Order: 1203142

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recved
1203142-01	HLSF-0143-HMW-TB-3-0312		03/14/12 10:50 AM	3/15/2012
1203142-02	HLSF-0143-HMW-037-0312		03/14/12 10:50 AM	3/15/2012
1203142-03	HLSF-0143-HMW-137-0312		03/14/12 10:50 AM	3/15/2012
1203142-04	HLSF-0143-HMW-038-0312		03/14/12 12:00 PM	3/15/2012
1203142-05	HLSF-0143-HMW-039-0312		03/14/12 01:30 PM	3/15/2012

Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1203142-01A	HLSF-0143-HMW-TB-3-0312	03/14/12 10:50 AM	Trip Blank	SW5030C	Purge and Trap Water GC/MS	03/21/12 01:35 PM	51075
1203142-02A	HLSF-0143-HMW-037-0312	03/14/12 10:50 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/21/12 01:35 PM	51075
1203142-02B	HLSF-0143-HMW-037-0312	03/14/12 10:50 AM	Aqueous	M5310C	TOC prep Aqueous	03/21/12 08:30 AM	51063
1203142-02C	HLSF-0143-HMW-037-0312	03/14/12 10:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/21/12 08:48 AM	51062
1203142-02D	HLSF-0143-HMW-037-0312	03/14/12 10:50 AM	Aqueous	SW7196A	Hexachrom Prep Water	03/15/12 11:29 AM	50968
	HLSF-0143-HMW-037-0312	03/14/12 10:50 AM	Aqueous	M4500-H+ B	pH Preparation	03/15/12 10:30 AM	50973
1203142-02E	HLSF-0143-HMW-037-0312	03/14/12 10:50 AM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	03/15/12 01:10 PM	50976
1203142-03A	HLSF-0143-HMW-137-0312	03/14/12 10:50 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/21/12 01:35 PM	51075
1203142-03B	HLSF-0143-HMW-137-0312	03/14/12 10:50 AM	Aqueous	M5310C	TOC prep Aqueous	03/21/12 08:30 AM	51063
1203142-03C	HLSF-0143-HMW-137-0312	03/14/12 10:50 AM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/21/12 08:48 AM	51062
1203142-03D	HLSF-0143-HMW-137-0312	03/14/12 10:50 AM	Aqueous	SW7196A	Hexachrom Prep Water	03/15/12 11:29 AM	50968
	HLSF-0143-HMW-137-0312	03/14/12 10:50 AM	Aqueous	M4500-H+ B	pH Preparation	03/15/12 10:30 AM	50973
1203142-03E	HLSF-0143-HMW-137-0312	03/14/12 10:50 AM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	03/15/12 01:10 PM	50976
1203142-04A	HLSF-0143-HMW-038-0312	03/14/12 12:00 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/21/12 01:35 PM	51075
1203142-04B	HLSF-0143-HMW-038-0312	03/14/12 12:00 PM	Aqueous	M5310C	TOC prep Aqueous	03/21/12 08:30 AM	51063
1203142-04C	HLSF-0143-HMW-038-0312	03/14/12 12:00 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/21/12 08:48 AM	51062
1203142-04D	HLSF-0143-HMW-038-0312	03/14/12 12:00 PM	Aqueous	SW7196A	Hexachrom Prep Water	03/15/12 11:29 AM	50968
	HLSF-0143-HMW-038-0312	03/14/12 12:00 PM	Aqueous	M4500-H+ B	pH Preparation	03/15/12 10:30 AM	50973
1203142-04E	HLSF-0143-HMW-038-0312	03/14/12 12:00 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	03/20/12 09:19 AM	51043
1203142-05A	HLSF-0143-HMW-039-0312	03/14/12 01:30 PM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/21/12 01:35 PM	51075

Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1203142-05B	HLSF-0143-HMW-039-0312	03/14/12 01:30 PM	Aqueous	M5310C	TOC prep Aqueous	03/21/12 08:30 AM	51063
1203142-05C	HLSF-0143-HMW-039-0312	03/14/12 01:30 PM	Aqueous	SW3005A	Aq Prep Metals : ICP-MS	03/21/12 08:48 AM	51062
1203142-05D	HLSF-0143-HMW-039-0312	03/14/12 01:30 PM	Aqueous	SW7196A	Hexachrom Prep Water	03/15/12 11:29 AM	50968
	HLSF-0143-HMW-039-0312	03/14/12 01:30 PM	Aqueous	M4500-H+ B	pH Preparation	03/15/12 10:30 AM	50973
1203142-05E	HLSF-0143-HMW-039-0312	03/14/12 01:30 PM	Aqueous	SW3510C	Aq Prep Sep Funnel: DRO	03/20/12 09:19 AM	51043

Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1203142-01A	HLSF-0143-HMW-TB-3-0312	Trip Blank	SW8260C	8260 Water Volatiles by GC/MS	51075	1	03/21/12 03:08 PM	GCMS7_120321A
1203142-02A	HLSF-0143-HMW-037-0312	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	51075	1	03/21/12 04:21 PM	GCMS7_120321A
1203142-02B	HLSF-0143-HMW-037-0312	Aqueous	M5310C	Total Organic Carbon	51063	1	03/21/12 01:03 PM	TOC_120321A
1203142-02C	HLSF-0143-HMW-037-0312	Aqueous	SW6020	Trace Metals: ICP-MS - Water	51062	1	03/23/12 02:51 PM	ICP-MS3_120323B
1203142-02D	HLSF-0143-HMW-037-0312	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	50968	1	03/15/12 12:14 PM	UV/VIS_2_120315C
	HLSF-0143-HMW-037-0312	Aqueous	M4500-H+ B	pH	50973	1	03/15/12 10:40 AM	TITRATOR_120315A
1203142-02E	HLSF-0143-HMW-037-0312	Aqueous	M8015D	TPH Extractable by GC - Water	50976	1	03/18/12 12:59 PM	GC15_120318A
1203142-03A	HLSF-0143-HMW-137-0312	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	51075	1	03/21/12 04:46 PM	GCMS7_120321A
1203142-03B	HLSF-0143-HMW-137-0312	Aqueous	M5310C	Total Organic Carbon	51063	1	03/21/12 01:23 PM	TOC_120321A
1203142-03C	HLSF-0143-HMW-137-0312	Aqueous	SW6020	Trace Metals: ICP-MS - Water	51062	1	03/23/12 02:56 PM	ICP-MS3_120323B
1203142-03D	HLSF-0143-HMW-137-0312	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	50968	1	03/15/12 12:14 PM	UV/VIS_2_120315C
	HLSF-0143-HMW-137-0312	Aqueous	M4500-H+ B	pH	50973	1	03/15/12 10:46 AM	TITRATOR_120315A
1203142-03E	HLSF-0143-HMW-137-0312	Aqueous	M8015D	TPH Extractable by GC - Water	50976	1	03/18/12 01:26 PM	GC15_120318A
1203142-04A	HLSF-0143-HMW-038-0312	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	51075	1	03/21/12 05:10 PM	GCMS7_120321A
1203142-04B	HLSF-0143-HMW-038-0312	Aqueous	M5310C	Total Organic Carbon	51063	1	03/21/12 01:45 PM	TOC_120321A
1203142-04C	HLSF-0143-HMW-038-0312	Aqueous	SW6020	Trace Metals: ICP-MS - Water	51062	1	03/23/12 03:02 PM	ICP-MS3_120323B
1203142-04D	HLSF-0143-HMW-038-0312	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	50968	1	03/15/12 12:14 PM	UV/VIS_2_120315C
	HLSF-0143-HMW-038-0312	Aqueous	M4500-H+ B	pH	50973	1	03/15/12 10:48 AM	TITRATOR_120315A
1203142-04E	HLSF-0143-HMW-038-0312	Aqueous	M8015D	TPH Extractable by GC - Water	51043	1	03/22/12 01:12 PM	GC15_120322C
1203142-05A	HLSF-0143-HMW-039-0312	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	51075	1	03/21/12 05:35 PM	GCMS7_120321A

Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1203142-05B	HLSF-0143-HMW-039-0312	Aqueous	M5310C	Total Organic Carbon	51063	1	03/21/12 02:09 PM	TOC_120321A
1203142-05C	HLSF-0143-HMW-039-0312	Aqueous	SW6020	Trace Metals: ICP-MS - Water	51062	1	03/23/12 03:07 PM	ICP-MS3_120323B
1203142-05D	HLSF-0143-HMW-039-0312	Aqueous	M3500-Cr D	Hexavalent Chromium-Water	50968	1	03/15/12 12:19 PM	UV/VIS_2_120315C
	HLSF-0143-HMW-039-0312	Aqueous	M4500-H+ B	pH	50973	1	03/15/12 10:51 AM	TITRATOR_120315A
1203142-05E	HLSF-0143-HMW-039-0312	Aqueous	M8015D	TPH Extractable by GC - Water	51043	1	03/22/12 01:20 PM	GC15_120322C

DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-TB-3-0312
Lab ID: 1203142-01
Collection Date: 03/14/12 10:50 AM
Matrix: TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
		SW8260C					Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 03:08 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 03:08 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 03:08 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/21/12 03:08 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 03:08 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/21/12 03:08 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/21/12 03:08 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-TB-3-0312
Lab ID: 1203142-01
Collection Date: 03/14/12 10:50 AM
Matrix: TRIP BLANK

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
		SW8260C					Analyst: KL
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Chloroform	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 03:08 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 03:08 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/21/12 03:08 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 03:08 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 03:08 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 03:08 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 03:08 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 03:08 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/21/12 03:08 PM
Surr: 1,2-Dichloroethane-d4	103	0	70-120	%REC	1	03/21/12 03:08 PM	
Surr: 4-Bromofluorobenzene	109	0	75-120	%REC	1	03/21/12 03:08 PM	
Surr: Dibromofluoromethane	96.4	0	85-115	%REC	1	03/21/12 03:08 PM	
Surr: Toluene-d8	103	0	85-120	%REC	1	03/21/12 03:08 PM	

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-037-0312
Lab ID: 1203142-02
Collection Date: 03/14/12 10:50 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER							
TPH-DRO C10-C28	0.0543	0.0500	0.100	J	mg/L	1	03/18/12 12:59 PM
Surr: Isopropylbenzene	60.7	0	47-142	%REC	%REC	1	03/18/12 12:59 PM
Surr: Octacosane	92.0	0	51-124	%REC	%REC	1	03/18/12 12:59 PM
TRACE METALS: ICP-MS - WATER							
Chromium	<0.00200	0.00200	0.00600		mg/L	1	03/23/12 02:51 PM
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:21 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:21 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:21 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/21/12 04:21 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:21 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/21/12 04:21 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/21/12 04:21 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-037-0312
Lab ID: 1203142-02
Collection Date: 03/14/12 10:50 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Bromodichloromethane	0.00125	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Chloroform	0.0153	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Dibromochloromethane	0.000210	0.000200	0.00100	J	mg/L	1	03/21/12 04:21 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:21 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:21 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/21/12 04:21 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:21 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:21 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:21 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:21 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:21 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/21/12 04:21 PM
Surr: 1,2-Dichloroethane-d4	104	0	70-120	%REC	1	03/21/12 04:21 PM	
Surr: 4-Bromofluorobenzene	109	0	75-120	%REC	1	03/21/12 04:21 PM	
Surr: Dibromofluoromethane	98.1	0	85-115	%REC	1	03/21/12 04:21 PM	
Surr: Toluene-d8	101	0	85-120	%REC	1	03/21/12 04:21 PM	

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits

DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-037-0312
Lab ID: 1203142-02
Collection Date: 03/14/12 10:50 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM-WATER							
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	03/15/12 12:14 PM
Trivalent Chromium	<0.00200	0.00200	0.00600	N	mg/L	1	03/15/12 12:14 PM
PH							
pH	7.44	0	0		pH Units	1	03/15/12 10:40 AM
TOTAL ORGANIC CARBON							
Total Organic Carbon	0.747	0.300	1.00	J	mg/L	1	03/21/12 01:03 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-137-0312
Lab ID: 1203142-03
Collection Date: 03/14/12 10:50 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER							
TPH-DRO C10-C28	0.0519	0.0500	0.100	J	mg/L	1	03/18/12 01:26 PM
Surr: Isopropylbenzene	69.6	0	47-142	%REC	%REC	1	03/18/12 01:26 PM
Surr: Octacosane	97.4	0	51-124	%REC	%REC	1	03/18/12 01:26 PM
TRACE METALS: ICP-MS - WATER							
Chromium	<0.00200	0.00200	0.00600		mg/L	1	03/23/12 02:56 PM
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:46 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:46 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:46 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/21/12 04:46 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 04:46 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/21/12 04:46 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/21/12 04:46 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-137-0312
Lab ID: 1203142-03
Collection Date: 03/14/12 10:50 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Bromodichloromethane	0.00119	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Chloroform	0.0162	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Dibromochloromethane	0.000220	0.000200	0.00100	J	mg/L	1	03/21/12 04:46 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 04:46 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:46 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/21/12 04:46 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 04:46 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:46 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:46 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Trichloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 04:46 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 04:46 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/21/12 04:46 PM
Surr: 1,2-Dichloroethane-d4	103	0	70-120	%REC	1	03/21/12 04:46 PM	
Surr: 4-Bromofluorobenzene	106	0	75-120	%REC	1	03/21/12 04:46 PM	
Surr: Dibromofluoromethane	98.4	0	85-115	%REC	1	03/21/12 04:46 PM	
Surr: Toluene-d8	102	0	85-120	%REC	1	03/21/12 04:46 PM	

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-137-0312
Lab ID: 1203142-03
Collection Date: 03/14/12 10:50 AM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM-WATER							
Hexavalent Chromium	<0.00800	0.00800	0.0100		mg/L	1	03/15/12 12:14 PM
Trivalent Chromium	<0.00200	0.00200	0.00600	N	mg/L	1	03/15/12 12:14 PM
PH							
pH	7.43	0	0		pH Units	1	03/15/12 10:46 AM
TOTAL ORGANIC CARBON							
Total Organic Carbon	0.582	0.300	1.00	J	mg/L	1	03/21/12 01:23 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-038-0312
Lab ID: 1203142-04
Collection Date: 03/14/12 12:00 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER							
TPH-DRO C10-C28	0.0540	0.0500	0.100	J	mg/L	1	03/22/12 01:12 PM
Surr: Isopropylbenzene	57.7	0	47-142	%REC	%REC	1	03/22/12 01:12 PM
Surr: Octacosane	90.3	0	51-124	%REC	%REC	1	03/22/12 01:12 PM
TRACE METALS: ICP-MS - WATER							
Chromium	0.0462	0.00200	0.00600		mg/L	1	03/23/12 03:02 PM
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,1-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:10 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:10 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:10 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/21/12 05:10 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:10 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/21/12 05:10 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/21/12 05:10 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits

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DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-038-0312
Lab ID: 1203142-04
Collection Date: 03/14/12 12:00 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
		SW8260C					Analyst: KL
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
Chloroform	0.000410	0.000300	0.00100	J	mg/L	1	03/21/12 05:10 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:10 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 05:10 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/21/12 05:10 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:10 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 05:10 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 05:10 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Trichloroethene	0.00863	0.000600	0.00200		mg/L	1	03/21/12 05:10 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:10 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/21/12 05:10 PM
Surr: 1,2-Dichloroethane-d4	107	0	70-120	%REC	1		03/21/12 05:10 PM
Surr: 4-Bromofluorobenzene	104	0	75-120	%REC	1		03/21/12 05:10 PM
Surr: Dibromofluoromethane	102	0	85-115	%REC	1		03/21/12 05:10 PM
Surr: Toluene-d8	101	0	85-120	%REC	1		03/21/12 05:10 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits Page 10 of 14

DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-038-0312
Lab ID: 1203142-04
Collection Date: 03/14/12 12:00 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM-WATER							
Hexavalent Chromium	0.0491	0.00800	0.0100		mg/L	1	03/15/12 12:14 PM
Trivalent Chromium	<0.00200	0.00200	0.00600	N	mg/L	1	03/15/12 12:14 PM
PH							
pH	7.49	0	0		pH Units	1	03/15/12 10:48 AM
TOTAL ORGANIC CARBON							
Total Organic Carbon	1.34	0.300	1.00		mg/L	1	03/21/12 01:45 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits Page 11 of 14

DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-039-0312
Lab ID: 1203142-05
Collection Date: 03/14/12 01:30 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
TPH EXTRACTABLE BY GC - WATER							
TPH-DRO C10-C28	0.0553	0.0500	0.100	J	mg/L	1	03/22/12 01:20 PM
Surr: Isopropylbenzene	57.2	0	47-142	%REC	%REC	1	03/22/12 01:20 PM
Surr: Octacosane	95.2	0	51-124	%REC	%REC	1	03/22/12 01:20 PM
TRACE METALS: ICP-MS - WATER							
Chromium	0.158	0.00200	0.00600		mg/L	1	03/23/12 03:07 PM
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
1,1,1,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,1,1-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,1,2,2-Tetrachloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,1,2-Trichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,1-Dichloroethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,1-Dichloroethene	0.00132	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,1-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,2,3-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:35 PM
1,2,3-Trichloropropane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
1,2,4-Trichlorobenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:35 PM
1,2,4-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:35 PM
1,2-Dibromo-3-chloropropane	<0.00300	0.00300	0.0100		mg/L	1	03/21/12 05:35 PM
1,2-Dibromoethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,2-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
1,2-Dichloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
1,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,3,5-Trimethylbenzene	<0.00150	0.00150	0.00500		mg/L	1	03/21/12 05:35 PM
1,3-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
1,3-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
1,4-Dichloro-2-butene	<0.00200	0.00200	0.00200		mg/L	1	03/21/12 05:35 PM
1,4-Dichlorobenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
2,2-Dichloropropane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
2-Butanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
2-Chloroethylvinylether	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
2-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
2-Hexanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
4-Chlorotoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
4-Methyl-2-pentanone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
Acetone	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
Acrylonitrile	<0.00100	0.00100	0.00300		mg/L	1	03/21/12 05:35 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Bromobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits Page 12 of 14

DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-039-0312
Lab ID: 1203142-05
Collection Date: 03/14/12 01:30 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 WATER VOLATILES BY GC/MS							
				SW8260C			Analyst: KL
Bromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Bromodichloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Bromoform	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Bromomethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
Carbon disulfide	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
Carbon tetrachloride	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Chlorobenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Chloroethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
Chloroform	0.000440	0.000300	0.00100	J	mg/L	1	03/21/12 05:35 PM
Chloromethane	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
cis-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
cis-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Dibromochloromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Dibromomethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Dichlorodifluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
Iodomethane	<0.00500	0.00500	0.0150		mg/L	1	03/21/12 05:35 PM
Isopropylbenzene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 05:35 PM
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
Methylene chloride	<0.00250	0.00250	0.00250		mg/L	1	03/21/12 05:35 PM
n-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
n-Propylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
p-Isopropyltoluene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
sec-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
Styrene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
tert-Butylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/21/12 05:35 PM
Tetrachloroethene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 05:35 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/21/12 05:35 PM
trans-1,2-Dichloroethene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
trans-1,3-Dichloropropene	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Trichloroethene	0.0331	0.000600	0.00200		mg/L	1	03/21/12 05:35 PM
Trichlorofluoromethane	<0.000200	0.000200	0.00100		mg/L	1	03/21/12 05:35 PM
Vinyl chloride	<0.000100	0.000100	0.00100		mg/L	1	03/21/12 05:35 PM
Surr: 1,2-Dichloroethane-d4	104	0	70-120	%REC	1		03/21/12 05:35 PM
Surr: 4-Bromofluorobenzene	108	0	75-120	%REC	1		03/21/12 05:35 PM
Surr: Dibromofluoromethane	98.0	0	85-115	%REC	1		03/21/12 05:35 PM
Surr: Toluene-d8	104	0	85-120	%REC	1		03/21/12 05:35 PM

Qualifiers: * Value exceeds TCLP Maximum Concentration Level
 C Sample Result or QC discussed in the Case Narrative
 E TPH pattern not Gas or Diesel Range Pattern
 MDL Method Detection Limit
 RL Reporting Limit
 N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
 DF Dilution Factor
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 S Spike Recovery outside control limits Page 13 of 14

DHL Analytical

Date: 29-Mar-12

CLIENT: Zia Engineering & Environmental
Project: HELSTF Chromium Spill
Project No:
Lab Order: 1203142

Client Sample ID: HLSF-0143-HMW-039-0312
Lab ID: 1203142-05
Collection Date: 03/14/12 01:30 PM
Matrix: AQUEOUS

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
HEXAVALENT CHROMIUM-WATER							
Hexavalent Chromium	0.164	0.00800	0.0100		mg/L	1	03/15/12 12:19 PM
Trivalent Chromium	<0.00200	0.00200	0.00600	N	mg/L	1	03/15/12 12:19 PM
PH							
pH	7.61	0	0		pH Units	1	03/15/12 10:51 AM
TOTAL ORGANIC CARBON							
Total Organic Carbon	1.46	0.300	1.00		mg/L	1	03/21/12 02:09 PM

Qualifiers:

- * Value exceeds TCLP Maximum Concentration Level
- C Sample Result or QC discussed in the Case Narrative
- E TPH pattern not Gas or Diesel Range Pattern
- MDL Method Detection Limit
- RL Reporting Limit
- N Parameter not NELAC certified

B Analyte detected in the associated Method Blank
DF Dilution Factor
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
S Spike Recovery outside control limits Page 14 of 14

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT**RunID:** GC15_120318A

The QC data in batch 50976 applies to the following samples: 1203142-02E, 1203142-03E

Sample ID: LCS-50976	Batch ID: 50976	TestNo: M8015D	Units: mg/L						
SampType: LCS	Run ID: GC15_120318A	Analysis Date: 3/18/2012 9:55:41 AM	Prep Date: 3/15/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	1.06	0.100	1.250	0	84.9	50	114		
Surr: Isopropylbenzene	0.0508		0.1000		50.8	47	142		
Surr: Octacosane	0.0907		0.1000		90.7	51	124		
Sample ID: MB-50976	Batch ID: 50976	TestNo: M8015D	Units: mg/L						
SampType: MBLK	Run ID: GC15_120318A	Analysis Date: 3/18/2012 11:40:55 AM	Prep Date: 3/15/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	0.0576	0.100							
Surr: Isopropylbenzene	0.0516		0.1000		51.6	47	142		
Surr: Octacosane	0.0918		0.1000		91.8	51	124		
Sample ID: 1203146-02DMS	Batch ID: 50976	TestNo: M8015D	Units: mg/L						
SampType: MS	Run ID: GC15_120318A	Analysis Date: 3/18/2012 1:52:30 PM	Prep Date: 3/15/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	1.10	0.100	1.250	0.06820	82.6	50	114		
Surr: Isopropylbenzene	0.0564		0.1000		56.4	47	142		
Surr: Octacosane	0.0902		0.1000		90.2	51	124		
Sample ID: 1203146-02DMSD	Batch ID: 50976	TestNo: M8015D	Units: mg/L						
SampType: MSD	Run ID: GC15_120318A	Analysis Date: 3/18/2012 2:01:15 PM	Prep Date: 3/15/2012						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit Qual
TPH-DRO C10-C28	0.990	0.100	1.250	0.06820	73.7	50	114	10.6	30
Surr: Isopropylbenzene	0.0536		0.1000		53.6	47	142	0	0
Surr: Octacosane	0.0844		0.1000		84.4	51	124	0	0

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

Page 1 of 22

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_120318A

Sample ID: ICV-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: ICV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 9:34:23 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	564	0.100	500.0	0	113	80	120			
Surr: Isopropylbenzene	23.4		25.00		93.8	80	120			
Surr: Octacosane	26.1		25.00		104	80	120			
Sample ID: CCV1-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: CCV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 11:23:24 AM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	280	0.100	250.0	0	112	80	120			
Surr: Isopropylbenzene	12.1		12.50		96.6	80	120			
Surr: Octacosane	13.0		12.50		104	80	120			
Sample ID: CCV2-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: CCV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 1:08:43 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	280	0.100	250.0	0	112	80	120			
Surr: Isopropylbenzene	12.1		12.50		96.6	80	120			
Surr: Octacosane	13.0		12.50		104	80	120			
Sample ID: CCV3-120318	Batch ID: R59651	TestNo: M8015D			Units:	mg/L				
SampType: CCV	Run ID: GC15_120318A	Analysis Date: 3/18/2012 2:53:59 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	287	0.100	250.0	0	115	80	120			
Surr: Isopropylbenzene	12.6		12.50		100	80	120			
Surr: Octacosane	13.1		12.50		105	80	120			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

Page 2 of 22

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_120322C

The QC data in batch 51043 applies to the following samples: 1203142-04E, 1203142-05E

Sample ID: LCS-51043	Batch ID: 51043	TestNo: M8015D	Units: mg/L							
SampType: LCS	Run ID: GC15_120322C	Analysis Date: 3/22/2012 12:37:00 PM	Prep Date: 3/20/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1.12	0.100	1.250	0	89.6	50	114			
Surr: Isopropylbenzene	0.0530		0.1000		53.0	47	142			
Surr: Octacosane	0.0900		0.1000		90.0	51	124			
Sample ID: LCSD-51043	Batch ID: 51043	TestNo: M8015D	Units: mg/L							
SampType: LCSD	Run ID: GC15_120322C	Analysis Date: 3/22/2012 12:45:48 PM	Prep Date: 3/20/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	1.10	0.100	1.250	0	87.9	50	114	1.95	30	
Surr: Isopropylbenzene	0.0560		0.1000		56.0	47	142	0	0	
Surr: Octacosane	0.0869		0.1000		86.9	51	124	0	0	
Sample ID: MB-51043	Batch ID: 51043	TestNo: M8015D	Units: mg/L							
SampType: MBLK	Run ID: GC15_120322C	Analysis Date: 3/22/2012 1:03:22 PM	Prep Date: 3/20/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
TPH-DRO C10-C28	<0.0800	0.100								
Surr: Isopropylbenzene	0.0472		0.1000		47.2	47	142			
Surr: Octacosane	0.0868		0.1000		86.8	51	124			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

Page 3 of 22

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GC15_120322C

Sample ID: ICV2-120322 DRO		Batch ID: R59735		TestNo: M8015D		Units: mg/L	
SampType: ICV		Run ID: GC15_120322C		Analysis Date: 3/22/2012 12:28:13 PM		Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28		579	0.100	500.0	0	116	80 120
Surr: Isopropylbenzene		24.3		25.00		97.1	80 120
Surr: Octacosane		25.8		25.00		103	80 120
Sample ID: CCV1-120322		Batch ID: R59735		TestNo: M8015D		Units: mg/L	
SampType: CCV		Run ID: GC15_120322C		Analysis Date: 3/22/2012 2:22:14 PM		Prep Date:	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit HighLimit %RPD RPDLimit Qual
TPH-DRO C10-C28		277	0.100	250.0	0	111	80 120
Surr: Isopropylbenzene		11.9		12.50		94.9	80 120
Surr: Octacosane		12.3		12.50		98.7	80 120

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120323B

The QC data in batch 51062 applies to the following samples: 1203142-02C, 1203142-03C, 1203142-04C, 1203142-05C

Sample ID: MB-51062	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: MBLK	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 2:00:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	<0.00200	0.00600									
Sample ID: LCS-51062	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: LCS	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 2:06:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	0.196	0.00600	0.200	0	97.8	80	120				
Sample ID: LCSD-51062	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: LCSD	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 2:11:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	0.192	0.00600	0.200	0	95.8	80	120	2.12	15		
Sample ID: 1203126-05C SD	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: SD	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 2:28:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	<0.0100	0.0300	0	0.00778				0	10		
Sample ID: 1203126-05C PDS	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: PDS	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 3:30:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	0.187	0.00600	0.200	0.00778	89.8	75	125				
Sample ID: 1203126-05C MS	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: MS	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 3:35:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	0.191	0.00600	0.200	0.00778	91.7	80	120				
Sample ID: 1203126-05C MSD	Batch ID: 51062	TestNo: SW6020	Units: mg/L								
SampType: MSD	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 3:41:00 PM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Chromium	0.193	0.00600	0.200	0.00778	92.5	80	120	0.833	15		

Qualifiers: B Analyte detected in the associated Method Blank
 J Analyte detected between MDL and RL
 ND Not Detected at the Method Detection Limit
 RL Reporting Limit
 J Analyte detected between SDL and RL

DF Dilution Factor
 MDL Method Detection Limit
 R RPD outside accepted control limits
 S Spike Recovery outside control limits
 N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: ICP-MS3_120323B

Sample ID: ICV1-120323	Batch ID: R59744	TestNo:	SW6020	Units:	mg/L					
SampType: ICV	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 11:20:00 AM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.106	0.00600	0.100	0	106	90	110			
Sample ID: CCV1-120323	Batch ID: R59744	TestNo:	SW6020	Units:	mg/L					
SampType: CCV	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 1:20:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.209	0.00600	0.200	0	105	90	110			
Sample ID: CCV2-120323	Batch ID: R59744	TestNo:	SW6020	Units:	mg/L					
SampType: CCV	Run ID: ICP-MS3_120323B	Analysis Date: 3/23/2012 3:46:00 PM		Prep Date:						
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.217	0.00600	0.200	0	109	90	110			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

The QC data in batch 51075 applies to the following samples: 1203142-01A, 1203142-02A, 1203142-03A, 1203142-04A, 1203142-05A

Sample ID: LCS-51075	Batch ID: 51075	TestNo: SW8260C	Units: mg/L							
SampType: LCS	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 1:54:00 PM	Prep Date: 3/21/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0218	0.00100	0.0232	0	93.8	80	130			
1,1,1-Trichloroethane	0.0222	0.00100	0.0232	0	95.9	65	130			
1,1,2,2-Tetrachloroethane	0.0247	0.00100	0.0232	0	107	65	130			
1,1,2-Trichloroethane	0.0208	0.00100	0.0232	0	89.4	75	125			
1,1-Dichloroethane	0.0236	0.00100	0.0232	0	102	70	135			
1,1-Dichloroethene	0.0243	0.00100	0.0232	0	105	70	130			
1,1-Dichloropropene	0.0212	0.00100	0.0232	0	91.5	75	130			
1,2,3-Trichlorobenzene	0.0270	0.00500	0.0232	0	116	55	140			
1,2,3-Trichloropropane	0.0246	0.00100	0.0232	0	106	75	125			
1,2,4-Trichlorobenzene	0.0261	0.00500	0.0232	0	112	65	135			
1,2,4-Trimethylbenzene	0.0250	0.00500	0.0232	0	108	75	130			
1,2-Dibromo-3-chloropropane	0.0231	0.0100	0.0232	0	99.7	50	130			
1,2-Dibromoethane	0.0228	0.00100	0.0232	0	98.4	80	120			
1,2-Dichlorobenzene	0.0238	0.00100	0.0232	0	102	70	120			
1,2-Dichloroethane	0.0207	0.00100	0.0232	0	89.3	70	130			
1,2-Dichloropropane	0.0211	0.00100	0.0232	0	91.1	75	125			
1,3,5-Trimethylbenzene	0.0245	0.00500	0.0232	0	106	75	130			
1,3-Dichlorobenzene	0.0240	0.00100	0.0232	0	103	75	125			
1,3-Dichloropropane	0.0230	0.00100	0.0232	0	99.1	75	125			
1,4-Dichloro-2-butene	0.0222	0.00200	0.0232	0	95.6	50	150			
1,4-Dichlorobenzene	0.0241	0.00100	0.0232	0	104	75	125			
2,2-Dichloropropane	0.0246	0.00100	0.0232	0	106	70	135			
2-Butanone	0.0211	0.0150	0.0232	0	91.1	30	150			
2-Chloroethylvinylether	0.0208	0.0150	0.0232	0	89.7	50	150			
2-Chlorotoluene	0.0245	0.00100	0.0232	0	105	75	125			
2-Hexanone	0.0233	0.0150	0.0232	0	100	55	130			
4-Chlorotoluene	0.0244	0.00100	0.0232	0	105	75	130			
4-Methyl-2-pentanone	0.0231	0.0150	0.0232	0	99.7	60	135			
Acetone	0.0305	0.0150	0.0232	0	131	40	140			
Acrylonitrile	0.0435	0.00300	0.0464	0	93.8	50	150			
Benzene	0.0214	0.00100	0.0232	0	92.2	80	120			
Bromobenzene	0.0229	0.00100	0.0232	0	98.6	75	125			
Bromochloromethane	0.0229	0.00100	0.0232	0	98.5	65	130			
Bromodichloromethane	0.0194	0.00100	0.0232	0	83.8	75	120			
Bromoform	0.0193	0.00100	0.0232	0	83.3	70	130			
Bromomethane	0.0257	0.00100	0.0232	0	111	30	145			
Carbon disulfide	0.0209	0.0150	0.0232	0	90.2	35	160			
Carbon tetrachloride	0.0221	0.00100	0.0232	0	95.3	65	140			
Chlorobenzene	0.0227	0.00100	0.0232	0	97.7	80	120			
Chloroethane	0.0255	0.00100	0.0232	0	110	60	135			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: LCS-51075	Batch ID: 51075	TestNo: SW8260C		Units: mg/L
SampType: LCS	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 1:54:00 PM Prep Date: 3/21/2012		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloroform	0.0227	0.00100	0.0232	0 98.0 65 135
Chloromethane	0.0252	0.00100	0.0232	0 108 40 125
cis-1,2-Dichloroethene	0.0226	0.00100	0.0232	0 97.4 70 125
cis-1,3-Dichloropropene	0.0203	0.00100	0.0232	0 87.5 70 130
Dibromochloromethane	0.0206	0.00100	0.0232	0 88.9 60 135
Dibromomethane	0.0205	0.00100	0.0232	0 88.4 75 125
Dichlorodifluoromethane	0.0241	0.00100	0.0232	0 104 30 155
Ethylbenzene	0.0228	0.00100	0.0232	0 98.1 75 125
Iodomethane	0.0221	0.0150	0.0232	0 95.3 50 150
Isopropylbenzene	0.0228	0.00100	0.0232	0 98.3 75 125
m,p-Xylene	0.0468	0.00200	0.0464	0 101 75 130
Methyl tert-butyl ether	0.0232	0.00100	0.0232	0 99.8 65 125
Methylene chloride	0.0280	0.00250	0.0232	0 121 55 140
n-Butylbenzene	0.0268	0.00100	0.0232	0 115 70 135
n-Propylbenzene	0.0250	0.00100	0.0232	0 108 70 130
o-Xylene	0.0225	0.00100	0.0232	0 97.1 80 120
p-Isopropyltoluene	0.0248	0.00100	0.0232	0 107 75 130
sec-Butylbenzene	0.0250	0.00100	0.0232	0 108 70 125
Styrene	0.0213	0.00100	0.0232	0 92.0 65 135
tert-Butylbenzene	0.0244	0.00100	0.0232	0 105 70 130
Tetrachloroethene	0.0214	0.00200	0.0232	0 92.1 45 150
Toluene	0.0205	0.00200	0.0232	0 88.4 75 120
trans-1,2-Dichloroethene	0.0227	0.00100	0.0232	0 97.7 60 140
trans-1,3-Dichloropropene	0.0200	0.00100	0.0232	0 86.2 55 140
Trichloroethene	0.0203	0.00200	0.0232	0 87.5 70 125
Trichlorofluoromethane	0.0246	0.00100	0.0232	0 106 60 145
Vinyl chloride	0.0252	0.00100	0.0232	0 109 50 145
Surr: 1,2-Dichloroethane-d4	202		200.0	101 70 120
Surr: 4-Bromofluorobenzene	210		200.0	105 75 120
Surr: Dibromofluoromethane	207		200.0	103 85 115
Surr: Toluene-d8	206		200.0	103 85 120

Sample ID: MB-51075	Batch ID: 51075	TestNo: SW8260C		Units: mg/L
SampType: MBLK	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 2:19:00 PM Prep Date: 3/21/2012		
Analyte	Result	RL	SPK value	Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
1,1,1,2-Tetrachloroethane	<0.000200	0.00100		
1,1,1-Trichloroethane	<0.000200	0.00100		
1,1,2,2-Tetrachloroethane	<0.000200	0.00100		
1,1,2-Trichloroethane	<0.000200	0.00100		
1,1-Dichloroethane	<0.000200	0.00100		

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: MB-51075	Batch ID: 51075	TestNo: SW8260C	Units: mg/L							
SampType: MBLK	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 2:19:00 PM Prep Date: 3/21/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	<0.000200	0.00100								
1,1-Dichloropropene	<0.000200	0.00100								
1,2,3-Trichlorobenzene	<0.00150	0.00500								
1,2,3-Trichloropropane	<0.000300	0.00100								
1,2,4-Trichlorobenzene	<0.00150	0.00500								
1,2,4-Trimethylbenzene	<0.00150	0.00500								
1,2-Dibromo-3-chloropropane	<0.00300	0.0100								
1,2-Dibromoethane	<0.000200	0.00100								
1,2-Dichlorobenzene	<0.000300	0.00100								
1,2-Dichloroethane	<0.000300	0.00100								
1,2-Dichloropropane	<0.000200	0.00100								
1,3,5-Trimethylbenzene	<0.00150	0.00500								
1,3-Dichlorobenzene	<0.000300	0.00100								
1,3-Dichloropropane	<0.000200	0.00100								
1,4-Dichloro-2-butene	<0.00200	0.00200								
1,4-Dichlorobenzene	<0.000300	0.00100								
2,2-Dichloropropane	<0.000200	0.00100								
2-Butanone	<0.00500	0.0150								
2-Chloroethylvinylether	<0.00500	0.0150								
2-Chlorotoluene	<0.000300	0.00100								
2-Hexanone	<0.00500	0.0150								
4-Chlorotoluene	<0.000300	0.00100								
4-Methyl-2-pentanone	<0.00500	0.0150								
Acetone	<0.00500	0.0150								
Acrylonitrile	<0.00100	0.00300								
Benzene	<0.000200	0.00100								
Bromobenzene	<0.000200	0.00100								
Bromochloromethane	<0.000200	0.00100								
Bromodichloromethane	<0.000200	0.00100								
Bromoform	<0.000200	0.00100								
Bromomethane	<0.000300	0.00100								
Carbon disulfide	<0.00500	0.0150								
Carbon tetrachloride	<0.000200	0.00100								
Chlorobenzene	<0.000200	0.00100								
Chloroethane	<0.000300	0.00100								
Chloroform	<0.000300	0.00100								
Chloromethane	<0.000300	0.00100								
cis-1,2-Dichloroethene	<0.000200	0.00100								
cis-1,3-Dichloropropene	<0.000200	0.00100								
Dibromochloromethane	<0.000200	0.00100								
Dibromomethane	<0.000200	0.00100								

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: MB-51075	Batch ID: 51075	TestNo: SW8260C	Units: mg/L							
SampType: MBLK	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 2:19:00 PM Prep Date: 3/21/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	<0.000200	0.00100								
Ethylbenzene	<0.000300	0.00100								
Iodomethane	<0.00500	0.0150								
Isopropylbenzene	<0.000200	0.00100								
m,p-Xylene	<0.000600	0.00200								
Methyl tert-butyl ether	<0.000300	0.00100								
Methylene chloride	<0.00250	0.00250								
n-Butylbenzene	<0.000300	0.00100								
n-Propylbenzene	<0.000300	0.00100								
o-Xylene	<0.000300	0.00100								
p-Isopropyltoluene	<0.000300	0.00100								
sec-Butylbenzene	<0.000300	0.00100								
Styrene	<0.000200	0.00100								
tert-Butylbenzene	<0.000300	0.00100								
Tetrachloroethene	<0.000600	0.00200								
Toluene	<0.000600	0.00200								
trans-1,2-Dichloroethene	<0.000200	0.00100								
trans-1,3-Dichloropropene	<0.000200	0.00100								
Trichloroethene	<0.000600	0.00200								
Trichlorofluoromethane	<0.000200	0.00100								
Vinyl chloride	<0.000100	0.00100								
Surr: 1,2-Dichloroethane-d4	208		200.0		104	70	120			
Surr: 4-Bromofluorobenzene	216		200.0		108	75	120			
Surr: Dibromofluoromethane	196		200.0		98.0	85	115			
Surr: Toluene-d8	206		200.0		103	85	120			

Sample ID: 1203176-05AMS	Batch ID: 51075	TestNo: SW8260C	Units: mg/L							
SampType: MS	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 3:32:00 PM Prep Date: 3/21/2012								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0215	0.00100	0.0232	0	92.8	80	130			
1,1,1-Trichloroethane	0.0212	0.00100	0.0232	0	91.5	65	130			
1,1,2,2-Tetrachloroethane	0.0242	0.00100	0.0232	0	104	65	130			
1,1,2-Trichloroethane	0.0207	0.00100	0.0232	0	89.4	75	125			
1,1-Dichloroethane	0.0215	0.00100	0.0232	0	92.8	70	135			
1,1-Dichloroethene	0.0224	0.00100	0.0232	0	96.4	70	130			
1,1-Dichloropropene	0.0214	0.00100	0.0232	0	92.2	75	130			
1,2,3-Trichlorobenzene	0.0232	0.00500	0.0232	0	100	55	140			
1,2,3-Trichloropropane	0.0248	0.00100	0.0232	0	107	75	125			
1,2,4-Trichlorobenzene	0.0237	0.00500	0.0232	0	102	65	135			
1,2,4-Trimethylbenzene	0.0243	0.00500	0.0232	0	105	75	130			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: 1203176-05AMS	Batch ID: 51075	TestNo: SW8260C		Units:	mg/L					
SampType: MS	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 3:32:00 PM					Prep Date: 3/21/2012			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.0241	0.0100	0.0232	0	104	50	130			
1,2-Dibromoethane	0.0226	0.00100	0.0232	0	97.2	80	120			
1,2-Dichlorobenzene	0.0231	0.00100	0.0232	0	99.6	70	120			
1,2-Dichloroethane	0.0207	0.00100	0.0232	0	89.2	70	130			
1,2-Dichloropropane	0.0206	0.00100	0.0232	0	88.6	75	125			
1,3,5-Trimethylbenzene	0.0240	0.00500	0.0232	0	103	75	130			
1,3-Dichlorobenzene	0.0230	0.00100	0.0232	0	99.0	75	125			
1,3-Dichloropropane	0.0230	0.00100	0.0232	0	99.2	75	125			
1,4-Dichloro-2-butene	0.0235	0.00200	0.0232	0	101	50	150			
1,4-Dichlorobenzene	0.0237	0.00100	0.0232	0	102	75	125			
2,2-Dichloropropane	0.0225	0.00100	0.0232	0	97.0	70	135			
2-Butanone	0.0230	0.0150	0.0232	0	99.3	30	150			
2-Chloroethylvinylether	<0.00500	0.0150	0.0232	0	0	50	150			S
2-Chlorotoluene	0.0226	0.00100	0.0232	0	97.2	75	125			
2-Hexanone	0.0261	0.0150	0.0232	0	112	55	130			
4-Chlorotoluene	0.0240	0.00100	0.0232	0	104	75	130			
4-Methyl-2-pentanone	0.0257	0.0150	0.0232	0	111	60	135			
Acetone	0.0601	0.0150	0.0232	0.0397	88.0	40	140			
Acrylonitrile	0.0419	0.00300	0.0464	0	90.2	50	150			
Benzene	0.0205	0.00100	0.0232	0	88.5	80	120			
Bromobenzene	0.0214	0.00100	0.0232	0	92.3	75	125			
Bromochloromethane	0.0214	0.00100	0.0232	0	92.3	65	130			
Bromodichloromethane	0.0193	0.00100	0.0232	0	83.0	75	120			
Bromoform	0.0199	0.00100	0.0232	0	85.7	70	130			
Bromomethane	0.0215	0.00100	0.0232	0	92.8	30	145			
Carbon disulfide	0.0191	0.0150	0.0232	0	82.4	35	160			
Carbon tetrachloride	0.0204	0.00100	0.0232	0	88.0	65	140			
Chlorobenzene	0.0220	0.00100	0.0232	0	94.7	80	120			
Chloroethane	0.0230	0.00100	0.0232	0	99.0	60	135			
Chloroform	0.0215	0.00100	0.0232	0	92.8	65	135			
Chloromethane	0.0239	0.00100	0.0232	0	103	40	125			
cis-1,2-Dichloroethene	0.0207	0.00100	0.0232	0	89.1	70	125			
cis-1,3-Dichloropropene	0.0192	0.00100	0.0232	0	82.6	70	130			
Dibromochloromethane	0.0210	0.00100	0.0232	0	90.4	60	135			
Dibromomethane	0.0206	0.00100	0.0232	0	88.8	75	125			
Dichlorodifluoromethane	0.0227	0.00100	0.0232	0	98.0	30	155			
Ethylbenzene	0.0222	0.00100	0.0232	0	95.5	75	125			
Iodomethane	0.0173	0.0150	0.0232	0	74.5	50	150			
Isopropylbenzene	0.0226	0.00100	0.0232	0	97.4	75	125			
m,p-Xylene	0.0455	0.00200	0.0464	0	98.0	75	130			
Methyl tert-butyl ether	0.0224	0.00100	0.0232	0	96.6	65	125			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: 1203176-05AMS	Batch ID: 51075	TestNo: SW8260C		Units:	mg/L					
SampType: MS	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 3:32:00 PM			Prep Date:	3/21/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	0.0252	0.00250	0.0232	0	109	55	140			
n-Butylbenzene	0.0261	0.00100	0.0232	0	112	70	135			
n-Propylbenzene	0.0232	0.00100	0.0232	0	100	70	130			
o-Xylene	0.0223	0.00100	0.0232	0	96.2	80	120			
p-Isopropyltoluene	0.0237	0.00100	0.0232	0	102	75	130			
sec-Butylbenzene	0.0241	0.00100	0.0232	0	104	70	125			
Styrene	0.0193	0.00100	0.0232	0	83.4	65	135			
tert-Butylbenzene	0.0237	0.00100	0.0232	0	102	70	130			
Tetrachloroethene	0.0208	0.00200	0.0232	0	89.7	45	150			
Toluene	0.0195	0.00200	0.0232	0	84.2	75	120			
trans-1,2-Dichloroethene	0.0209	0.00100	0.0232	0	89.9	60	140			
trans-1,3-Dichloropropene	0.0192	0.00100	0.0232	0	82.8	55	140			
Trichloroethene	0.0191	0.00200	0.0232	0	82.4	70	125			
Trichlorofluoromethane	0.0228	0.00100	0.0232	0	98.1	60	145			
Vinyl chloride	0.0234	0.00100	0.0232	0	101	50	145			
Surr: 1,2-Dichloroethane-d4	205		200.0		103	70	120			
Surr: 4-Bromofluorobenzene	200		200.0		99.9	75	120			
Surr: Dibromofluoromethane	201		200.0		100	85	115			
Surr: Toluene-d8	209		200.0		105	85	120			

Sample ID: 1203176-05AMSD	Batch ID: 51075	TestNo: SW8260C		Units:	mg/L					
SampType: MSD	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 3:57:00 PM			Prep Date:	3/21/2012				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0214	0.00100	0.0232	0	92.3	80	130	0.512	30	
1,1,1-Trichloroethane	0.0215	0.00100	0.0232	0	92.7	65	130	1.31	30	
1,1,2,2-Tetrachloroethane	0.0236	0.00100	0.0232	0	102	65	130	2.64	30	
1,1,2-Trichloroethane	0.0205	0.00100	0.0232	0	88.4	75	125	1.07	30	
1,1-Dichloroethane	0.0217	0.00100	0.0232	0	93.5	70	135	0.833	30	
1,1-Dichloroethene	0.0222	0.00100	0.0232	0	95.6	70	130	0.808	30	
1,1-Dichloropropene	0.0223	0.00100	0.0232	0	96.0	75	130	4.08	30	
1,2,3-Trichlorobenzene	0.0228	0.00500	0.0232	0	98.4	55	140	1.82	30	
1,2,3-Trichloropropane	0.0244	0.00100	0.0232	0	105	75	125	1.67	30	
1,2,4-Trichlorobenzene	0.0233	0.00500	0.0232	0	100	65	135	1.91	30	
1,2,4-Trimethylbenzene	0.0242	0.00500	0.0232	0	104	75	130	0.412	30	
1,2-Dibromo-3-chloropropane	0.0224	0.0100	0.0232	0	96.6	50	130	7.10	30	
1,2-Dibromoethane	0.0223	0.00100	0.0232	0	96.0	80	120	1.20	30	
1,2-Dichlorobenzene	0.0225	0.00100	0.0232	0	97.2	70	120	2.50	30	
1,2-Dichloroethane	0.0201	0.00100	0.0232	0	86.8	70	130	2.74	30	
1,2-Dichloropropene	0.0203	0.00100	0.0232	0	87.7	75	125	1.03	30	
1,3,5-Trimethylbenzene	0.0232	0.00500	0.0232	0	99.8	75	130	3.52	30	

Qualifiers:	B	Analyte detected in the associated Method Blank	DF	Dilution Factor
	J	Analyte detected between MDL and RL	MDL	Method Detection Limit
	ND	Not Detected at the Method Detection Limit	R	RPD outside accepted control limits
	RL	Reporting Limit	S	Spike Recovery outside control limits
	J	Analyte detected between SDL and RL	N	Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: 1203176-05AMSD	Batch ID: 51075	TestNo: SW8260C		Units: mg/L						
SampType: MSD	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 3:57:00 PM			Prep Date: 3/21/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	0.0229	0.00100	0.0232	0	98.6	75	125	0.393	30	
1,3-Dichloropropane	0.0226	0.00100	0.0232	0	97.5	75	125	1.71	30	
1,4-Dichloro-2-butene	0.0225	0.00200	0.0232	0	97.0	50	150	4.30	30	
1,4-Dichlorobenzene	0.0232	0.00100	0.0232	0	99.8	75	125	2.26	30	
2,2-Dichloropropane	0.0216	0.00100	0.0232	0	92.9	70	135	4.36	30	
2-Butanone	0.0242	0.0150	0.0232	0	104	30	150	4.75	30	
2-Chloroethylvinylether	<0.00500	0.0150	0.0232	0	0	50	150	0	30	S
2-Chlorotoluene	0.0219	0.00100	0.0232	0	94.5	75	125	2.83	30	
2-Hexanone	0.0250	0.0150	0.0232	0	108	55	130	4.03	30	
4-Chlorotoluene	0.0230	0.00100	0.0232	0	99.2	75	130	4.25	30	
4-Methyl-2-pentanone	0.0254	0.0150	0.0232	0	110	60	135	1.10	30	
Acetone	0.0507	0.0150	0.0232	0.0397	47.2	40	140	17.1	30	
Acrylonitrile	0.0421	0.00300	0.0464	0	90.7	50	150	0.548	30	
Benzene	0.0218	0.00100	0.0232	0	94.0	80	120	5.95	30	
Bromobenzene	0.0207	0.00100	0.0232	0	89.2	75	125	3.37	30	
Bromochloromethane	0.0200	0.00100	0.0232	0	86.1	65	130	6.96	30	
Bromodichloromethane	0.0192	0.00100	0.0232	0	82.9	75	120	0.156	30	
Bromoform	0.0197	0.00100	0.0232	0	84.8	70	130	1.11	30	
Bromomethane	0.0211	0.00100	0.0232	0	90.8	30	145	2.16	30	
Carbon disulfide	0.0190	0.0150	0.0232	0	82.0	35	160	0.472	30	
Carbon tetrachloride	0.0207	0.00100	0.0232	0	89.3	65	140	1.46	30	
Chlorobenzene	0.0219	0.00100	0.0232	0	94.4	80	120	0.319	30	
Chloroethane	0.0239	0.00100	0.0232	0	103	60	135	4.01	30	
Chloroform	0.0200	0.00100	0.0232	0	86.4	65	135	7.12	30	
Chloromethane	0.0247	0.00100	0.0232	0	106	40	125	3.46	30	
cis-1,2-Dichloroethene	0.0209	0.00100	0.0232	0	90.0	70	125	1.01	30	
cis-1,3-Dichloropropene	0.0194	0.00100	0.0232	0	83.4	70	130	0.935	30	
Dibromochloromethane	0.0202	0.00100	0.0232	0	87.3	60	135	3.49	30	
Dibromomethane	0.0198	0.00100	0.0232	0	85.4	75	125	3.86	30	
Dichlorodifluoromethane	0.0228	0.00100	0.0232	0	98.1	30	155	0.087	30	
Ethylbenzene	0.0218	0.00100	0.0232	0	94.1	75	125	1.46	30	
Iodomethane	0.0193	0.0150	0.0232	0	83.3	50	150	11.1	30	
Isopropylbenzene	0.0220	0.00100	0.0232	0	94.6	75	125	2.87	30	
m,p-Xylene	0.0442	0.00200	0.0464	0	95.3	75	130	2.77	30	
Methyl tert-butyl ether	0.0232	0.00100	0.0232	0	100	65	125	3.55	30	
Methylene chloride	0.0250	0.00250	0.0232	0	108	55	140	0.997	30	
n-Butylbenzene	0.0252	0.00100	0.0232	0	109	70	135	3.31	30	
n-Propylbenzene	0.0226	0.00100	0.0232	0	97.2	70	130	2.75	30	
o-Xylene	0.0219	0.00100	0.0232	0	94.4	80	120	1.95	30	
p-Isopropyltoluene	0.0238	0.00100	0.0232	0	103	75	130	0.295	30	
sec-Butylbenzene	0.0240	0.00100	0.0232	0	103	70	125	0.623	30	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: 1203176-05AMSD	Batch ID: 51075	TestNo: SW8260C		Units: mg/L						
SampType: MSD	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 3:57:00 PM			Prep Date: 3/21/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Styrene	0.0182	0.00100	0.0232	0	78.7	65	135	5.80	30	
tert-Butylbenzene	0.0234	0.00100	0.0232	0	101	70	130	1.14	30	
Tetrachloroethene	0.0204	0.00200	0.0232	0	87.8	45	150	2.04	30	
Toluene	0.0195	0.00200	0.0232	0	84.1	75	120	0.051	30	
trans-1,2-Dichloroethene	0.0214	0.00100	0.0232	0	92.4	60	140	2.74	30	
trans-1,3-Dichloropropene	0.0191	0.00100	0.0232	0	82.2	55	140	0.627	30	
Trichloroethene	0.0189	0.00200	0.0232	0	81.3	70	125	1.32	30	
Trichlorofluoromethane	0.0234	0.00100	0.0232	0	101	60	145	2.81	30	
Vinyl chloride	0.0244	0.00100	0.0232	0	105	50	145	4.05	30	
Surr: 1,2-Dichloroethane-d4	218		200.0		109	70	120	0	0	
Surr: 4-Bromofluorobenzene	196		200.0		98.1	75	120	0	0	
Surr: Dibromofluoromethane	204		200.0		102	85	115	0	0	
Surr: Toluene-d8	207		200.0		103	85	120	0	0	

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: ICV2-120321	Batch ID: R59702	TestNo: SW8260C	Units: mg/L							
SampType: ICV	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 1:30:00 PM								
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0.0462	0.00100	0.0464	0	99.5	80	120			
1,1,1-Trichloroethane	0.0414	0.00100	0.0464	0	89.3	80	120			
1,1,2,2-Tetrachloroethane	0.0538	0.00100	0.0464	0	116	80	120			
1,1,2-Trichloroethane	0.0426	0.00100	0.0464	0	91.8	80	120			
1,1-Dichloroethane	0.0409	0.00100	0.0464	0	88.2	80	120			
1,1-Dichloroethene	0.0410	0.00100	0.0464	0	88.3	80	120			
1,1-Dichloropropene	0.0417	0.00100	0.0464	0	89.8	80	120			
1,2,3-Trichlorobenzene	0.0487	0.00500	0.0464	0	105	80	120			
1,2,3-Trichloropropane	0.0530	0.00100	0.0464	0	114	80	120			
1,2,4-Trichlorobenzene	0.0494	0.00500	0.0464	0	106	80	120			
1,2,4-Trimethylbenzene	0.0493	0.00500	0.0464	0	106	80	120			
1,2-Dibromo-3-chloropropane	0.0519	0.0100	0.0464	0	112	80	120			
1,2-Dibromoethane	0.0473	0.00100	0.0464	0	102	80	120			
1,2-Dichlorobenzene	0.0472	0.00100	0.0464	0	102	80	120			
1,2-Dichloroethane	0.0421	0.00100	0.0464	0	90.8	80	120			
1,2-Dichloropropane	0.0418	0.00100	0.0464	0	90.0	80	120			
1,3,5-Trimethylbenzene	0.0483	0.00500	0.0464	0	104	80	120			
1,3-Dichlorobenzene	0.0463	0.00100	0.0464	0	99.8	80	120			
1,3-Dichloropropane	0.0480	0.00100	0.0464	0	103	80	120			
1,4-Dichloro-2-butene	0.0504	0.00200	0.0464	0	109	80	120			
1,4-Dichlorobenzene	0.0468	0.00100	0.0464	0	101	80	120			
2,2-Dichloropropane	0.0413	0.00100	0.0464	0	89.0	80	120			
2-Butanone	0.0508	0.0150	0.0464	0	110	80	120			
2-Chloroethylvinylether	0.0448	0.0150	0.0464	0	96.6	80	120			
2-Chlorotoluene	0.0483	0.00100	0.0464	0	104	80	120			
2-Hexanone	0.0539	0.0150	0.0464	0	116	80	120			
4-Chlorotoluene	0.0480	0.00100	0.0464	0	103	80	120			
4-Methyl-2-pentanone	0.0537	0.0150	0.0464	0	116	80	120			
Acetone	0.0557	0.0150	0.0464	0	120	80	120			
Acrylonitrile	0.0810	0.00300	0.0928	0	87.3	60	140			
Benzene	0.0410	0.00100	0.0464	0	88.4	80	120			
Bromobenzene	0.0447	0.00100	0.0464	0	96.4	80	120			
Bromochloromethane	0.0392	0.00100	0.0464	0	84.4	80	120			
Bromodichloromethane	0.0416	0.00100	0.0464	0	89.7	80	120			
Bromoform	0.0446	0.00100	0.0464	0	96.1	80	120			
Bromomethane	0.0373	0.00100	0.0464	0	80.4	80	120			
Carbon disulfide	0.0366	0.0150	0.0464	0	78.8	80	120			S
Carbon tetrachloride	0.0422	0.00100	0.0464	0	90.9	80	120			
Chlorobenzene	0.0441	0.00100	0.0464	0	95.0	80	120			
Chloroethane	0.0370	0.00100	0.0464	0	79.7	80	120			
Chloroform	0.0392	0.00100	0.0464	0	84.5	80	120			

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: GCMS7_120321A

Sample ID: ICV2-120321	Batch ID: R59702	TestNo: SW8260C		Units:	mg/L					
SampType: ICV	Run ID: GCMS7_120321A	Analysis Date: 3/21/2012 1:30:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	0.0433	0.00100	0.0464	0	93.2	80	120			
cis-1,2-Dichloroethene	0.0388	0.00100	0.0464	0	83.7	80	120			
cis-1,3-Dichloropropene	0.0420	0.00100	0.0464	0	90.5	80	120			
Dibromochloromethane	0.0457	0.00100	0.0464	0	98.4	80	120			
Dibromomethane	0.0410	0.00100	0.0464	0	88.3	80	120			
Dichlorodifluoromethane	0.0408	0.00100	0.0464	0	87.8	80	120			
Ethylbenzene	0.0438	0.00100	0.0464	0	94.3	80	120			
Iodomethane	0.0363	0.0150	0.0464	0	78.2	80	120			S
Isopropylbenzene	0.0438	0.00100	0.0464	0	94.4	80	120			
m,p-Xylene	0.0886	0.00200	0.0928	0	95.5	80	120			
Methyl tert-butyl ether	0.0462	0.00100	0.0464	0	99.6	80	120			
Methylene chloride	0.0472	0.00250	0.0464	0	102	80	120			
n-Butylbenzene	0.0523	0.00100	0.0464	0	113	80	120			
n-Propylbenzene	0.0485	0.00100	0.0464	0	105	80	120			
o-Xylene	0.0442	0.00100	0.0464	0	95.2	80	120			
p-Isopropyltoluene	0.0478	0.00100	0.0464	0	103	80	120			
sec-Butylbenzene	0.0478	0.00100	0.0464	0	103	80	120			
Styrene	0.0417	0.00100	0.0464	0	89.9	80	120			
tert-Butylbenzene	0.0470	0.00100	0.0464	0	101	80	120			
Tetrachloroethene	0.0416	0.00200	0.0464	0	89.8	80	120			
Toluene	0.0394	0.00200	0.0464	0	84.9	80	120			
trans-1,2-Dichloroethene	0.0394	0.00100	0.0464	0	85.0	80	120			
trans-1,3-Dichloropropene	0.0418	0.00100	0.0464	0	90.2	80	120			
Trichloroethene	0.0401	0.00200	0.0464	0	86.4	80	120			
Trichlorofluoromethane	0.0365	0.00100	0.0464	0	78.7	80	120			S
Vinyl chloride	0.0433	0.00100	0.0464	0	93.3	80	120			
Surr: 1,2-Dichloroethane-d4	199		200.0		99.7	70	120			
Surr: 4-Bromofluorobenzene	215		200.0		107	75	120			
Surr: Dibromofluoromethane	184		200.0		92.0	85	115			
Surr: Toluene-d8	210		200.0		105	85	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_120315A

The QC data in batch 50973 applies to the following samples: 1203142-02D, 1203142-03D, 1203142-04D, 1203142-05D

Sample ID: 1203142-02D DUP	Batch ID: 50973	TestNo: M4500-H+ B	Units: pH Units
SampType: DUP	Run ID: TITRATOR_120315A	Analysis Date: 3/15/2012 10:43:00 AM	Prep Date: 3/15/2012
Analyte	Result	RL	SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
pH	7.45	0	0 7.440 0.134 5

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: TITRATOR_120315A

Sample ID: ICV-120315	Batch ID: R59600	TestNo:	M4500-H+ B	Units:	pH Units					
SampType: ICV	Run ID: TITRATOR_120315A	Analysis Date: 3/15/2012 10:37:00 AM		Prep Date:	3/15/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	10.0	0	10.00	0	100	99	101			
Sample ID: CCV-120315	Batch ID: R59600	TestNo:	M4500-H+ B	Units:	pH Units					
SampType: CCV	Run ID: TITRATOR_120315A	Analysis Date: 3/15/2012 10:54:00 AM		Prep Date:	3/15/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.01	0	7.000	0	100	97.1	102.9			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: TOC_120321A

The QC data in batch 51063 applies to the following samples: 1203142-02B, 1203142-03B, 1203142-04B, 1203142-05B

Sample ID: LCS-51063	Batch ID: 51063	TestNo: M5310C	Units: mg/L								
SampType: LCS	Run ID: TOC_120321A	Analysis Date: 3/21/2012 10:06:00 AM	Prep Date: 3/21/2012								
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Total Organic Carbon	9.12	1.00	10.00	0	91.2	80	120				
Analyte Result RL SPK value Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual											
Total Organic Carbon	<0.300	1.00									
Sample ID: MB-51063	Batch ID: 51063	TestNo: M5310C	Units: mg/L								
SampType: MLBK	Run ID: TOC_120321A	Analysis Date: 3/21/2012 10:30:00 AM	Prep Date: 3/21/2012								
Total Organic Carbon	11.5	1.00	10.00	1.306	102	80	120				
Sample ID: 1203126-05B MS	Batch ID: 51063	TestNo: M5310C	Units: mg/L								
SampType: MS	Run ID: TOC_120321A	Analysis Date: 3/21/2012 12:23:00 PM	Prep Date: 3/21/2012								
Total Organic Carbon	11.5	1.00	10.00	1.306	102	80	120	0.530	15		
Sample ID: 1203126-05B MSD	Batch ID: 51063	TestNo: M5310C	Units: mg/L								
SampType: MSD	Run ID: TOC_120321A	Analysis Date: 3/21/2012 12:44:00 PM	Prep Date: 3/21/2012								
Total Organic Carbon	11.5	1.00	10.00	1.306	102	80	120				

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: TOC_120321A

Sample ID: ICV-120321	Batch ID: R59711	TestNo:	M5310C	Units:	mg/L					
SampType: ICV	Run ID: TOC_120321A	Analysis Date: 3/21/2012 9:45:00 AM		Prep Date:	3/21/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	14.9	1.00	15.00	0	99.5	90	110			
Sample ID: CCV-120321	Batch ID: R59711	TestNo:	M5310C	Units:	mg/L					
SampType: CCV	Run ID: TOC_120321A	Analysis Date: 3/21/2012 3:15:00 PM		Prep Date:	3/21/2012					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	9.08	1.00	10.00	0	90.8	80	120			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_120315C

The QC data in batch 50968 applies to the following samples: 1203142-02D, 1203142-03D, 1203142-04D, 1203142-05D

Sample ID: MB-50968	Batch ID: 50968	TestNo: M3500-Cr D	Units: mg/L							
SampType: MLBK	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:09:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	<0.00800	0.0100								
Sample ID: LCS-50968	Batch ID: 50968	TestNo: M3500-Cr D	Units: mg/L							
SampType: LCS	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:09:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.0927	0.0100	0.100	0	92.7	85	115			
Sample ID: LCSD-50968	Batch ID: 50968	TestNo: M3500-Cr D	Units: mg/L							
SampType: LCSD	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:13:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.0982	0.0100	0.100	0	98.2	85	115	5.67	15	
Sample ID: 1203142-03D MS	Batch ID: 50968	TestNo: M3500-Cr D	Units: mg/L							
SampType: MS	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:14:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.0970	0.0100	0.100	0	97.0	85	115			
Sample ID: 1203142-03D MSD	Batch ID: 50968	TestNo: M3500-Cr D	Units: mg/L							
SampType: MSD	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:14:00 PM	Prep Date: 3/15/2012							
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.102	0.0100	0.100	0	102	85	115	5.40	15	

Qualifiers:

- B Analyte detected in the associated Method Blank
- J Analyte detected between MDL and RL
- ND Not Detected at the Method Detection Limit
- RL Reporting Limit
- J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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CLIENT: Zia Engineering & Environmental
Work Order: 1203142
Project: HELSTF Chromium Spill

ANALYTICAL QC SUMMARY REPORT

RunID: UV/VIS_2_120315C

Sample ID: ICV-120315	Batch ID: R59645	TestNo:	M3500-Cr D	Units:	mg/L					
SampType: ICV	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:09:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.0977	0.0100	0.100	0	97.7	90	110			
Sample ID: CCV-120315	Batch ID: R59645	TestNo:	M3500-Cr D	Units:	mg/L					
SampType: CCV	Run ID: UV/VIS_2_120315C	Analysis Date: 3/15/2012 12:19:00 PM			Prep Date:					
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexavalent Chromium	0.202	0.0100	0.200	0	101	90	110			

Qualifiers: B Analyte detected in the associated Method Blank
J Analyte detected between MDL and RL
ND Not Detected at the Method Detection Limit
RL Reporting Limit
J Analyte detected between SDL and RL

DF Dilution Factor
MDL Method Detection Limit
R RPD outside accepted control limits
S Spike Recovery outside control limits
N Parameter not NELAC certified

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Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

Sequence Report

Run ID: GC15_120318A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120318	----	M8015D	R59651	1	3/18/2012 9:34:23 AM		A
LCS-50976	----	M8015D	50976	1	3/18/2012 9:55:41 AM	3/15/2012 1:10:04 PM	A
CCV1-120318	----	M8015D	R59651	1	3/18/2012 11:23:24 AM		A
MB-50976	----	M8015D	50976	1	3/18/2012 11:40:55 AM	3/15/2012 1:10:04 PM	A
1203142-02E	HLSF-0143-HMW-037-0312	M8015D	50976	1	3/18/2012 12:59:57 PM	3/15/2012 1:10:04 PM	A
CCV2-120318	----	M8015D	R59651	1	3/18/2012 1:08:43 PM		A
1203142-03E	HLSF-0143-HMW-137-0312	M8015D	50976	1	3/18/2012 1:26:14 PM	3/15/2012 1:10:04 PM	A
1203146-02DMS	----	M8015D	50976	1	3/18/2012 1:52:30 PM	3/15/2012 1:10:04 PM	A
1203146-02DMSD	----	M8015D	50976	1	3/18/2012 2:01:15 PM	3/15/2012 1:10:04 PM	A
CCV3-120318	----	M8015D	R59651	1	3/18/2012 2:53:59 PM		A

Run ID: GC15_120322C

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV2-120322 DRO	----	M8015D	R59735	1	3/22/2012 12:28:13 PM		A
LCS-51043	----	M8015D	51043	1	3/22/2012 12:37:00 PM	3/20/2012 9:19:27 AM	A
LCSD-51043	----	M8015D	51043	1	3/22/2012 12:45:48 PM	3/20/2012 9:19:27 AM	A
MB-51043	----	M8015D	51043	1	3/22/2012 1:03:22 PM	3/20/2012 9:19:27 AM	A
1203142-04E	HLSF-0143-HMW-038-0312	M8015D	51043	1	3/22/2012 1:12:08 PM	3/20/2012 9:19:27 AM	A
1203142-05E	HLSF-0143-HMW-039-0312	M8015D	51043	1	3/22/2012 1:20:54 PM	3/20/2012 9:19:27 AM	A
CCV1-120322	----	M8015D	R59735	1	3/22/2012 2:22:14 PM		A

Run ID: GCMS7_120321A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV2-120321	----	SW8260C	R59702	1	3/21/2012 1:30:00 PM		A
LCS-51075	----	SW8260C	51075	1	3/21/2012 1:54:00 PM	3/21/2012 1:35:01 PM	A
MB-51075	----	SW8260C	51075	1	3/21/2012 2:19:00 PM	3/21/2012 1:35:01 PM	A
1203142-01A	HLSF-0143-HMW-TB-3-0312	SW8260C	51075	1	3/21/2012 3:08:00 PM	3/21/2012 1:35:01 PM	T
1203176-05AMS	----	SW8260C	51075	1	3/21/2012 3:32:00 PM	3/21/2012 1:35:01 PM	A
1203176-05AMSD	----	SW8260C	51075	1	3/21/2012 3:57:00 PM	3/21/2012 1:35:01 PM	A
1203142-02A	HLSF-0143-HMW-037-0312	SW8260C	51075	1	3/21/2012 4:21:00 PM	3/21/2012 1:35:01 PM	A
1203142-03A	HLSF-0143-HMW-137-0312	SW8260C	51075	1	3/21/2012 4:46:00 PM	3/21/2012 1:35:01 PM	A
1203142-04A	HLSF-0143-HMW-038-0312	SW8260C	51075	1	3/21/2012 5:10:00 PM	3/21/2012 1:35:01 PM	A
1203142-05A	HLSF-0143-HMW-039-0312	SW8260C	51075	1	3/21/2012 5:35:00 PM	3/21/2012 1:35:01 PM	A

Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

Sequence Report**Run ID: ICP-MS3_120323B**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
BLANK STD 1	-----	SW6020	R59744	1	3/23/2012 10:13:00 AM		A
1/20 ppb STD.	-----	SW6020	R59744	1	3/23/2012 10:19:00 AM		A
10/200 ppb STD.	-----	SW6020	R59744	1	3/23/2012 10:25:00 AM		A
250/5000 ppb STD.	-----	SW6020	R59744	1	3/23/2012 10:30:00 AM		A
500/10000 ppb STD.	-----	SW6020	R59744	1	3/23/2012 10:36:00 AM		A
2000/25000 ppb ST	-----	SW6020	R59744	1	3/23/2012 10:41:00 AM		A
ICSAB-120323	-----	SW6020	R59744	1	3/23/2012 11:03:00 AM		A
ICV1-120323	-----	SW6020	R59744	1	3/23/2012 11:20:00 AM		A
ICB1-120323	-----	SW6020	R59744	1	3/23/2012 11:39:00 AM		A
CCV1-120323	-----	SW6020	R59744	1	3/23/2012 1:20:00 PM		A
CCB1-120323	-----	SW6020	R59744	1	3/23/2012 1:54:00 PM		A
MB-51062	-----	SW6020	51062	1	3/23/2012 2:00:00 PM	3/21/2012 8:48:48 AM	A
LCS-51062	-----	SW6020	51062	1	3/23/2012 2:06:00 PM	3/21/2012 8:48:48 AM	A
LCSD-51062	-----	SW6020	51062	1	3/23/2012 2:11:00 PM	3/21/2012 8:48:48 AM	A
1203126-05C SD	-----	SW6020	51062	5	3/23/2012 2:28:00 PM	3/21/2012 8:48:48 AM	A
1203142-02C	HLSF-0143-HMW-037-0312	SW6020	51062	1	3/23/2012 2:51:00 PM	3/21/2012 8:48:48 AM	A
1203142-03C	HLSF-0143-HMW-137-0312	SW6020	51062	1	3/23/2012 2:56:00 PM	3/21/2012 8:48:48 AM	A
1203142-04C	HLSF-0143-HMW-038-0312	SW6020	51062	1	3/23/2012 3:02:00 PM	3/21/2012 8:48:48 AM	A
1203142-05C	HLSF-0143-HMW-039-0312	SW6020	51062	1	3/23/2012 3:07:00 PM	3/21/2012 8:48:48 AM	A
1203126-05C PDS	-----	SW6020	51062	1	3/23/2012 3:30:00 PM	3/21/2012 8:48:48 AM	A
1203126-05C MS	-----	SW6020	51062	1	3/23/2012 3:35:00 PM	3/21/2012 8:48:48 AM	A
1203126-05C MSD	-----	SW6020	51062	1	3/23/2012 3:41:00 PM	3/21/2012 8:48:48 AM	A
CCV2-120323	-----	SW6020	R59744	1	3/23/2012 3:46:00 PM		A
CCB2-120323	-----	SW6020	R59744	1	3/23/2012 4:12:00 PM		A
CCB3-120323	-----	SW6020	R59744	1	3/23/2012 6:28:00 PM		A

Run ID: TITRATOR_120315A

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV2-120315	-----	M4500-H+ B	R59600	1	3/15/2012 10:34:00 AM	3/15/2012 10:34:00 AM	A
ICV1-120315	-----	M4500-H+ B	R59600	1	3/15/2012 10:36:00 AM	3/15/2012 10:36:00 AM	A
ICV-120315	-----	M4500-H+ B	R59600	1	3/15/2012 10:37:00 AM	3/15/2012 10:37:00 AM	A
1203142-02D	HLSF-0143-HMW-037-0312	M4500-H+ B	50973	1	3/15/2012 10:40:00 AM	3/15/2012 10:30:00 AM	A
1203142-02D DUP	HLSF-0143-HMW-037-0312PD9	M4500-H+ B	50973	1	3/15/2012 10:43:00 AM	3/15/2012 10:30:00 AM	A
1203142-03D	HLSF-0143-HMW-137-0312	M4500-H+ B	50973	1	3/15/2012 10:46:00 AM	3/15/2012 10:30:00 AM	A
1203142-04D	HLSF-0143-HMW-038-0312	M4500-H+ B	50973	1	3/15/2012 10:48:00 AM	3/15/2012 10:30:00 AM	A
1203142-05D	HLSF-0143-HMW-039-0312	M4500-H+ B	50973	1	3/15/2012 10:51:00 AM	3/15/2012 10:30:00 AM	A
CCV-120315	-----	M4500-H+ B	R59600	1	3/15/2012 10:54:00 AM	3/15/2012 10:54:00 AM	A

Lab Order: 1203142
Client: Zia Engineering & Environmental
Project: HELSTF Chromium Spill

Sequence Report**Run ID: TOC_120321A**

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120321	-----	M5310C	R59711	1	3/21/2012 9:45:00 AM	3/21/2012 8:30:00 AM	A
LCS-51063	-----	M5310C	51063	1	3/21/2012 10:06:00 AM	3/21/2012 8:30:00 AM	A
MB-51063	-----	M5310C	51063	1	3/21/2012 10:30:00 AM	3/21/2012 8:30:00 AM	A
1203126-05B MS	-----	M5310C	51063	1	3/21/2012 12:23:00 PM	3/21/2012 8:30:00 AM	A
1203126-05B MSD	-----	M5310C	51063	1	3/21/2012 12:44:00 PM	3/21/2012 8:30:00 AM	A
1203142-02B	HLSF-0143-HMW-037-0312	M5310C	51063	1	3/21/2012 1:03:00 PM	3/21/2012 8:30:00 AM	A
1203142-03B	HLSF-0143-HMW-137-0312	M5310C	51063	1	3/21/2012 1:23:00 PM	3/21/2012 8:30:00 AM	A
1203142-04B	HLSF-0143-HMW-038-0312	M5310C	51063	1	3/21/2012 1:45:00 PM	3/21/2012 8:30:00 AM	A
1203142-05B	HLSF-0143-HMW-039-0312	M5310C	51063	1	3/21/2012 2:09:00 PM	3/21/2012 8:30:00 AM	A
CCV-120321	-----	M5310C	R59711	1	3/21/2012 3:15:00 PM	3/21/2012 8:30:00 AM	A

Run ID: UV/VIS_2_120315C

Sample ID	Client Sample ID	Test Number	Batch ID	Dilution	Analysis Date	Prep Date	Matrix
ICV-120315	-----	M3500-Cr D	R59645	1	3/15/2012 12:09:00 PM		A
MB-50968	-----	M3500-Cr D	50968	1	3/15/2012 12:09:00 PM	3/15/2012 11:29:50 AM	A
LCS-50968	-----	M3500-Cr D	50968	1	3/15/2012 12:09:00 PM	3/15/2012 11:29:50 AM	A
LCSD-50968	-----	M3500-Cr D	50968	1	3/15/2012 12:13:00 PM	3/15/2012 11:29:50 AM	A
1203142-03D	HLSF-0143-HMW-137-0312	M3500-Cr D	50968	1	3/15/2012 12:14:00 PM	3/15/2012 11:29:50 AM	A
1203142-03D MS	HLSF-0143-HMW-137-0312MS	M3500-Cr D	50968	1	3/15/2012 12:14:00 PM	3/15/2012 11:29:50 AM	A
1203142-03D MSD	HLSF-0143-HMW-137-	M3500-Cr D	50968	1	3/15/2012 12:14:00 PM	3/15/2012 11:29:50 AM	A
1203142-02D	HLSF-0143-HMW-037-0312	M3500-Cr D	50968	1	3/15/2012 12:14:00 PM	3/15/2012 11:29:50 AM	A
1203142-04D	HLSF-0143-HMW-038-0312	M3500-Cr D	50968	1	3/15/2012 12:14:00 PM	3/15/2012 11:29:50 AM	A
1203142-05D	HLSF-0143-HMW-039-0312	M3500-Cr D	50968	1	3/15/2012 12:19:00 PM	3/15/2012 11:29:50 AM	A
CCV-120315	-----	M3500-Cr D	R59645	1	3/15/2012 12:19:00 PM		A

Manual Integrations Tracking Form - DoD QSM 4.2 Requirement

Instrument ID: GCMS#7

ICAL: GCMS7_120117W.CAL

Data Folder: GCMS7_120321A

<u>Sample ID</u>	<u>Analyte #1</u>	<u>Analyte #2</u>	<u>Analyte #3</u>	<u>Analyte #4</u>
ICAL, ICV, and CCV QC and Field Samples	Identification & Reason	Identification & Reason	Identification & Reason	Identification & Reason
ICV-120321 ICV2	Bromomethane – did not integrate entire peak.	Chloroethane – did not integrate entire peak.		
LCS-51075	Chloroethane – did not integrate entire peak.			
1203176-05AMS	Chloroethane – did not integrate entire peak.			
1203176-05AMSD	Chloroethane – did not integrate entire peak.			

*Manually Integrated = MI

Karyn Lane
Analyst

3-22-12
Date

Every Day Review
2nd Level Review

3/26/2012

Date